

**REMARKS**

Claims 1-19 are pending and subject to restriction.

**Amendments**

Claims 1-14 have been cancelled.

Claim 14 has been amended as follows: “A computer-based method for deriving a linear classifier for classifying a test gene expression dataset comprising.” Support for this amendment is found in the specification at e.g., page 8, lines 7-17 and 24-25, page 32, lines 21-23, page 34, lines 7-17, page 56, lines 8-23.

Claim 14 has been amended as follows: “(a) providing a reference gene expression dataset comprising two subsets of data, wherein one subset is labeled in the class and the other subset is labeled outside the class.” Support for this amendment is found in the specification at e.g., page 31, lines 25-27.

Claim 14 has been amended as follows: “(b) deriving a linear classification rule by reducing minimizing the value of a loss function associated withon said reference gene expression dataset, thereby deriving ; and applying saida linear classification rule to a test gene expression dataset thereby capable of determining the classification of the test gene expression dataset as in the class or outside the class.” Support for this amendment is found in the specification at e.g., page 32, lines 21-23, page 31, lines 25-27.

Claim 15 has been amended as follows: “the reference gene expression dataset is a chemogenomic dataset based oncomprising gene expression levels measured in response to in vivo compound treatments.” Support for this amendment is found in the specification at e.g., page 2, lines 30-31.

Claim 18 has been amended as follows: “A computer ~~program product~~ readable medium comprising computer-executable code for deriving a linear classifier for classifying a test gene expression dataset, said code comprising instructions for.” Support for this amendment is found in the specification at e.g., page 8, lines 7-17 and 24-25, page 32, lines 21-23, page 34, lines 7-17, page 56, lines 8-23, and 24-26.

Claim 18 has been amended as follows: “(a) computer code for querying accepting input of a reference gene expression dataset comprising two subsets of data, wherein one

subset is labeled in the class and the other subset is labeled outside the class.” Support for this amendment is found in the specification at e.g., page 31, lines 25-27.

Claim 18 has been amended as follows: “~~(b) computer code for deriving a linear classification rule by reducing minimizing~~ the value of a loss function ~~associated with~~on said reference gene expression dataset, thereby deriving a linear classifier capable of determining the classification of the test gene expression dataset as in the class or outside the class.” Support for this amendment is found in the specification at e.g., page page 32, lines 21-23, page 31, lines 25-27.

New claims 20 and 25 are supported by the specification at e.g., page 35, lines 17-21.

New claims 21 and 26 are supported by the specification at e.g., page 34, lines 13-14.

New claims 22-24 and 28-30 are supported by the specification at e.g., page 7, lines 4-13, page 31, lines 14-18.

No new matter is added by these amendments.

### **Response**

Applicant elects the invention of Group III for examination. Claim 1-13 have been cancelled. Pending claims 15-19 and new claims 20-30 encompass the elected invention.

### **CONCLUSION**

Applicant respectfully submits that the instant application is in good and proper order for allowance and early notification to this effect is solicited. If, in the opinion of the Examiner, a telephone conference would expedite prosecution of the instant application, the Examiner is encouraged to call the undersigned at the number listed below.

Respectfully submitted,

Date: July 22, 2008

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